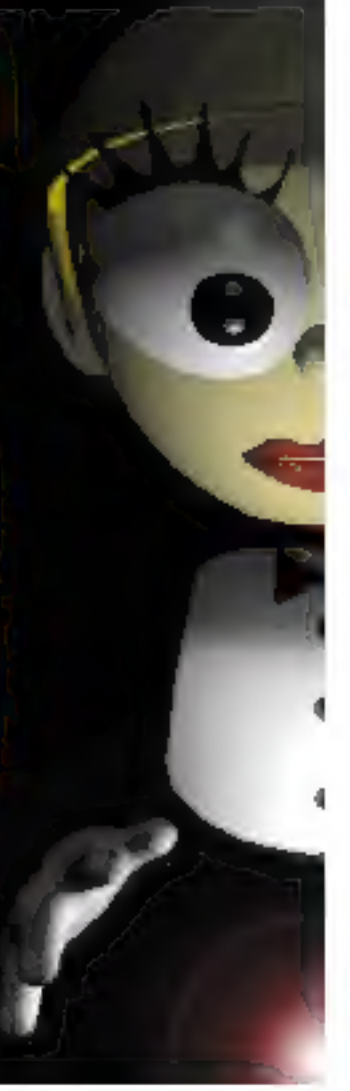
MAGNIFICENT MARLENA'S

MIND-BENDING MAGIC SHOW

TEACHER'S GUIDE



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Introduction

Magnificent Marlena's Mind-Bending Magic Show provides a fun way to help students of any age exercise memory retention, logic, and mathematical reasoning skills. The program contains six different games, all of which take place in a carnival magic show. The user will match wits with Magnificent Marlena and her mind-bending magic. Marlena will challenge the user to repeat, reverse, and solve a variety of sequences of letters, numbers, colors, and objects.

The different games can be selected by clicking on the game buttons on the program's opening screen. Each game contains randomly generated sequences of varying complexity. There are 20 levels in each game for a total of 120 levels of play. Within each game, the difficulty level can be adjusted by clicking on the red arrows in the right portion of the screen. In each game, the user's answer may be entered by clicking on one of the number, letter, color, or object buttons at the bottom of the screen. (In addition, an answer containing a number or letter may be entered using the keyboard.)

The program monitors the user's progress in three ways: First, for every correct response, one light is illuminated at the bottom of the screen. Second, after every 5 correct responses, the user earns a rabbit. And third, when 4 rabbits have been earned, the user has won the game and Marlena disappears from the stage.

At any time during game play, the user may click on the orange question mark to hear a general help message. Click on the orange musical note button in the left portion of the screen to turn off the background music. To change games or exit the program, click on the red "OUT" button in the upper left portion of the screen.

Objectives

1. To exercise memory retention abilities.
2. To exercise logical and critical thinking skills via deductive reasoning.
3. To exercise the ability to learn in a timed environment.
4. To exercise mathematical reasoning skills.

3 The following provides a brief description of the 6 games. Games 1 and 2 are designed to achieve Objective 1. Games 3 and 4 are designed to achieve Objectives 1 and 2. Objectives 1, 2, and 3 are the focus of Game 5. Game 6 focuses on Objectives 2 and 4.

Game 1 (Repeat-O-Rama)

In this game, the user will try to repeat the sequence that Marlena presents. For example, if Marlena presents "A W F P Q," the user needs to enter those letters in that exact order. If the user repeats the sequence correctly, another item in the sequence is added automatically. If the user repeats the sequence incorrectly, the correct answer will be given automatically, and the user can click on the "OK" button to begin a new sequence. Level 1 introduces the concept of a sequence to the user by beginning with only one item. As the difficulty level increases, the number of items in the opening sequence increases. If the maximum number of 36 items in the sequence is correctly repeated, the game automatically advances 5 levels. If the user has selected Level 20 and the maximum number of 36 items is correctly repeated, the game continues at Level 20 and Marlena will present a new sequence.

"A W F P Q" presented as sequence

"A W F P Q" given as answer

Game 2 (Amar-O-Taeper)

In this game, the user will try to reverse the sequence Marlena presents. For example, to answer the given sequence "A W F P Q" correctly, the user would need to enter "Q P F W A." If the user reverses the sequence correctly, another item in the sequence is added automatically. If the user reverses the sequence incorrectly, the correct answer is given automatically, and the user can click on the "OK" button to begin a new sequence. Level 1 introduces the concept of a sequence to the user by beginning with only one item. As the difficulty level increases, the number of items in the opening sequence increases. If the maximum number of 36 items in the sequence is achieved, the game automatically advances 5 levels. If the user has selected Level 20 and the maximum number of 36 items is achieved, the game continues at Level 20 and Marlena will present a new sequence.

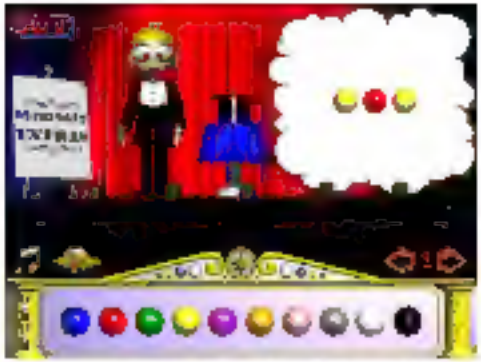
"A W F P Q" presented as sequence

"Q P F W A" given as answer

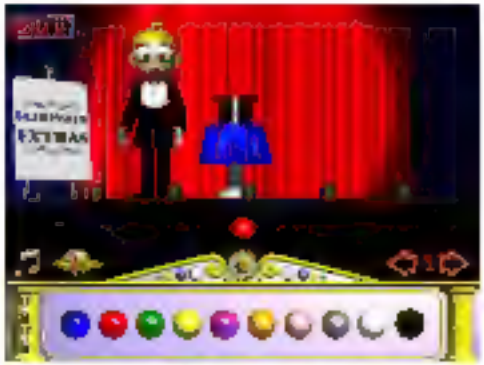
Game 3 (Eliminate Extras)

In this game, Marlena will present two sequences. To answer correctly, the user must be able to tell the difference between the two sequences. For example, if the first sequence is " yellow, yellow" and the second sequence is "yellow, red, yellow," the correct answer would be "red." If the user identifies the difference correctly, another sequence is given automatically. If the user incorrectly chooses the difference between the two sequences, the correct answer will be shown, and the user can click on the "OK" button to begin a new sequence.

sequence given



sequence given again with additional items



item added given as answer

Game 4 (Hide 'n Sequence)

Game 4 requires the user to combine memory retention and logic abilities. In this game, the user will try to complete the given sequence by providing the missing number, letter, color, or object in the red box. The correct sequence is revealed once, and reappears with specific items replaced by question marks inside red boxes. If the sequence is solved correctly, another sequence is given automatically. If the sequence is solved incorrectly, the correct answer is revealed, and the user can click on the "OK" button to begin a new sequence.

repeating sequence given with item missing

item missing given as answer

Game 5 (Time Flies)

Like Game 4, Game 5 requires the user to combine memory retention and logic abilities. In this game, the user will try to complete the given sequence by providing the missing number, letter, color, or object in the red box within an allotted period of time (between 5 and 30 seconds). The correct sequence is revealed once, and reappears with specific items replaced by question marks inside red boxes. If the sequence is solved correctly before time runs out, another sequence is given automatically. If the sequence is solved incorrectly, or if time has expired, the correct answer will be revealed, and the user can click on the "OK" button to begin a new sequence.

repeating sequence given with item missing

item missing given as answer in specified time

Game 6 (Mathemagic!)

In this game, the user will combine critical thinking and math skills to solve mathematically-based sequences. For example, a sample sequence might read: "9 8 7 ? 5." Because each number decreases by 1, the correct answer here is "6." To enter an answer, the user can click on the numbered buttons at the bottom of the screen or enter the numbers using the keyboard. To correct a mistake before it is entered, the user can click on the red "CLEAR" button and start over. When the answer is ready, the user should click on the green "ENTER" button. If the user solves the sequence correctly, a new sequence is given automatically. If the answer is incorrect, the correct answer is revealed (as well as the mathematical formula that created the sequence), and the user can click on the "OK" button to begin a new sequence.

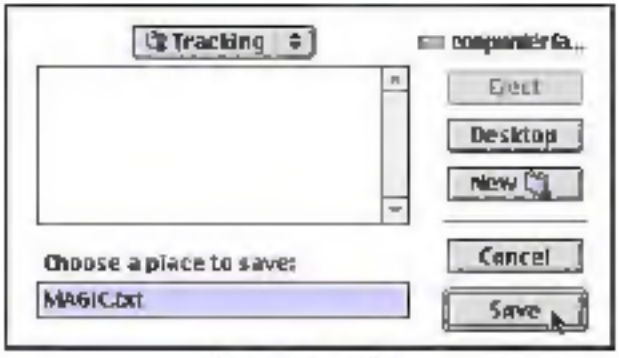
mathematical sequence given with item missing

missing item given as answer

The tracking function data is stored in a text file that can be accessed by most word processing programs. (Hint: For best results, change the font of your tracking output to a monospaced font, such as "Courier.")

The tracking function is automatically activated. You will be given the opportunity to access the tracking information when you exit the program. When the student is finished using the program, click on the "EXIT" button. On the next screen that appears, there are three options: SAVE, PRINT, and EXIT. To save the tracking information, click the "SAVE" button; when the dialogue box appears, name the file, and designate where you want to save it. To print the tracking information, click the " PRINT" button, and follow the directions of your operating system. To simply exit the program without saving the tracking information, click the "EXIT" button.

Tracking screen



"save" dialog box

As you can see from the above descriptions, these 6 games offer the user the opportunity to exercise memory retention abilities and critical thinking skills. The ways you use the program will vary depending upon the individual student's needs and ability level. You should begin by determining the types of skills the student needs to exercise. Because differences among some of the difficulty levels are relatively subtle, you may need to review the sequences in any given level to determine the best starting point for your student.

To help your student exercise memory retention abilities, have the student play Games 1 and 2 at the appropriate levels. To introduce short, simple sequences, have the student begin at Level 1. As the game progresses, more items will be added to each sequence gradually. As a result, even the lowest levels can become extremely challenging.

Games 3, 4, 5, and 6 are designed to combine memory retention and critical thinking skills in complex ways. In these games, the student must not only remember what comprises each sequence, but must be able to use that information to deduce the answer. To introduce critical thinking methods, have your student play Level 1 of Game 4. Here, the user needs to analyze the sequence to deduce which item in the sequence belongs in the mystery box. Once your student has mastered this concept, advance to higher levels and longer, more complex sequences. Then, advance to Game 5, which adds time limits to the game, and Game 6, which is our ultimate critical thinking challenge.